

**NUCLEUS
RESEARCH**

RESEARCH NOTE C39

ROI ANALYSIS YOU CAN TRUST™

ROI Case Study: Microsoft BizTalk Server Flextronics

THE BOTTOM LINE

Flextronics achieved positive ROI from its Microsoft BizTalk Server deployment by standardizing its process for communicating with customers and partners and reducing IT costs associated with disparate communication systems.

ROI: 192%

Payback: 6.5 months

THE COMPANY

Headquartered in Singapore, Flextronics is a leading electronics manufacturing services provider. With fiscal year 2002 revenue of US \$13.1 billion and approximately 70,000 employees, Flextronics is a major global operating company with design, engineering, manufacturing, and logistics operations in 28 countries and four continents.

THE CHALLENGE

Flextronics provides its customers with design, engineering, manufacturing, logistics, and post-manufacturing services so that they can remain competitive as market demands change. As the company's business grew, so did the need to rapidly communicate information with customers and suppliers. Flextronics employees at more than 150 locations worldwide had implemented XML, EDI, FTP, and other applications to ensure rapid supply chain communication. Although the various systems met individual partner needs, they were expensive to support — and there was no standard format for communicating or processing information.

When the company's EDI platform vendor announced it would stop supporting the solution in 2000, Flextronics reviewed its supply chain strategy and decided it needed a new communications platform that would enable the company to standardize the way it shared data with partners. The system needed to be highly scalable and reliable and to support translation and processing of documents from XML, EDI, RosettaNet, FTP, and other formats. Most important, migration to the new system had to be invisible — or at the very least, extremely easy — for Flextronics's partners.

THE STRATEGY

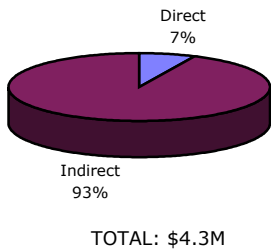
Flextronics began development on the Netfish platform but rapidly found that the solution couldn't support the volume of EDI transactions it needed, so it began considering other options including Iona and Microsoft BizTalk Server. When Flextronics first looked at BizTalk Server, its EDI capabilities were limited and the RosettaNet accelerator had not been completed. Flextronics chose to wait until RosettaNet development was completed before making a decision. Flextronics ultimately decided on BizTalk Server because it was one of the only scalable solutions that could support EDI, XML, and other data formats and because Microsoft could support customization and implementation

on a global basis. The company also purchased software to support EDI translation.

In February 2002, Flextronics began project development using Microsoft consulting to provide needed customization to BizTalk Server and a Microsoft partner to design the mapping and orchestration schemas based on Flextronics's business design. While the solution was developed, the Flextronics team participated in Microsoft BizTalk Server training to learn how to support and manage the solution.

In March, Flextronics launched its BizTalk Server pilot and completed testing and validation. In April, the application went live: Flextronics transparently migrated 68 trading partners to the new solution and retired its old EDI X12 infrastructure, and it successfully implemented EDI X12 and XML document processing on the same application.

BENEFITS



KEY BENEFIT AREAS

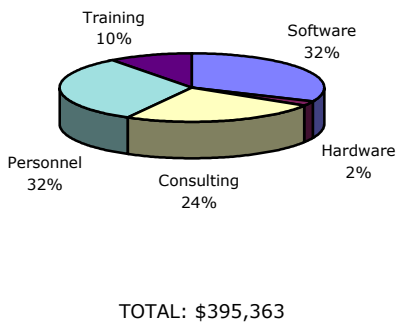
Moving to a standard communications platform based on BizTalk Server enabled Flextronics to support one standard process for communicating with customers and partners, enabling the company to increase efficiency while leveraging its global presence. Flextronics experienced a number of key benefits from its Microsoft BizTalk Server deployment, including the following:

- Reduced IT costs. Moving to BizTalk Server enabled Flextronics to eliminate some existing software licenses and server hardware that supported previous systems.
- Increased IT staff productivity. Eliminating multiple communication systems allowed Flextronics's IT staff to focus on other strategic projects instead of on support and maintenance of various servers supporting different supply-chain communication applications.

KEY COST AREAS

Personnel and software made up the two largest cost areas of Flextronics's BizTalk Server deployment, with each accounting for 32 percent of the project costs. Consulting costs amounted to 24 percent of the total project.

COSTS



LESSONS LEARNED

Given the scale and scope of Flextronics's BizTalk Server deployment, effective project management, training, and testing were all critical to success. Key lessons learned in those areas included the following:

- Establish a project team with clearly defined roles.
- Agree early on tactical goals and timelines. Make consultants accountable members of the team.
- Train employees in a "real" technology environment as close to the actual launch as possible to ensure the information is fresh in their minds.
- Test as early as possible using a trading partner and real data and applications so that application and process issues are worked out before the application is launched.

Flextronics had a challenge many companies face when evaluating rapidly evolving technologies: It didn't want to wait for BizTalk Server to have all the capabilities it needed, but it didn't want to invest heavily in customization and development. Its solution, waiting until key EDI

and RosettaNet functionality was available and using Microsoft consulting to complete the other developments needed, ensured it could rapidly deploy and start achieving returns from its investment.

CALCULATING THE ROI

Nucleus quantified the costs of software, hardware, personnel, consulting, and training associated with the project over a 3-year period to calculate Flextronics's total investment in Microsoft BizTalk Server. Direct benefits quantified included reduced software and hardware costs and redeployed IT personnel. Not included in the benefits calculation were the benefits Flextronics received from standardizing on one business process to support all its worldwide customer communication.

Flextronics

Summary

Project:	Microsoft BizTalk Server
Annual Return On Investment (ROI)	192%
Payback Period (Years)	0.54
Net Present Value (NPV)	1,277,575
Average Yearly Cost of Ownership	131,788

Annual Benefits	Initial	Year 1	Year 2	Year 3
Direct	0	115,000	90,000	90,000
Indirect	0	1,260,000	1,323,000	1,389,150
Total Benefits Per Period	0	1,375,000	1,413,000	1,479,150

Depreciated Assets	Initial	Year 1	Year 2	Year 3
Software	222,799	0	0	0
Hardware	40,000	0	0	0
Total Per Period	262,799	0	0	0

Depreciation Schedule	Initial	Year 1	Year 2	Year 3
Software	44,560	44,560	44,560	44,560
Hardware	8,000	8,000	8,000	8,000
Total Per Period	52,560	52,560	52,560	52,560

Expensed Costs	Initial	Year 1	Year 2	Year 3
Software	21,020	20,000	20,000	20,000
Hardware	0	0	0	0
Consulting	96,014	0	0	0
Personnel	125,000	0	0	0
Training	40,769	0	0	0
Other	0	0	0	0
Total Per Period	282,803	20,000	20,000	20,000

Financial Analysis	Results	Year 1	Year 2	Year 3
Net cash flow before taxes		1,355,000	1,393,000	1,459,150
Net cash flow after taxes		703,780	722,780	755,855
Annual ROI - direct and indirect benefits				192%
Annual ROI - direct benefits only				17%
Net Present Value (NPV)				1,277,575
Payback (Years)	0.54			
Average Cost of Ownership (TCO/Years)		355,363	187,681	131,788
3-Year Cumulative ROI	438%			
3-Year IRR	180%			

Basic Financial Assumptions

All Government Taxes	50%
Discount Rate	15%

All calculations are based on Nucleus Research's independent analysis of the expected costs and benefits associated with the application profiled in the accompanying case.